



This document is scheduled to be published in the Federal Register on 11/15/2013 and available online at <http://federalregister.gov/a/2013-27105>, and on FDsys.gov

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

Docket No. NHTSA-2009-0189

RIN 2127-AL13

Federal Motor Vehicle Safety Standards; Designated Seating Positions

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Final rule; response to petitions for reconsideration.

SUMMARY: This document completes the agency's response to petitions for reconsideration of an October 2008 final rule that amended the definition of the term, "designated seating position," as used in the Federal motor vehicle safety standards, to facilitate the determination of which areas within the interior of a vehicle meet that definition. The final rule made the new definition applicable to vehicles manufactured on and after September 1, 2010. Previously, the agency granted petitions requesting one year of additional lead time until the new definition became applicable, removal the portion of the regulatory text stating that State tort law requirements are preempted, and technical corrections. This final rule addresses the remaining issues raised in the petitions for reconsideration and makes clarifying changes to the manner in which designated seating positions are measured. We are also including technical corrections addressing side-facing seats and longer seating surfaces.

DATES: The effective date of this final rule is [INSERT DATE 30 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Petitions for reconsideration must be received not later than [INSERT DATE 45 DAYS AFTER THE DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Petitions must be submitted to: Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, S.E., Washington, DC, 20590.

FOR FURTHER INFORMATION CONTACT: For non-legal issues, you may contact Louis Molino of the NHTSA Office of Crashworthiness Standards by telephone at (202) 366-1740, and by fax at (202) 493-2739.

For legal issues, you may contact David Jasinski of the NHTSA Office of Chief Counsel by telephone at (202) 366-2992, and by fax at (202) 366-3820.

You may send mail to both of these officials at the National Highway Traffic Safety Administration, 1200 New Jersey Avenue, S.E., Washington, DC 20590.

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I. Background

On October 8, 2008, NHTSA published in the **Federal Register** a final rule (October 2008 final rule) revising the definition of “designated seating position” (DSP), as that term is used in the Federal motor vehicle safety standards (FMVSS), and providing a calculation procedure for determining the number of seating positions at a seat location.¹ The revised definition specifies more clearly the areas within the interior of a vehicle that are regarded as being designated seating positions for trucks, multipurpose passenger vehicles, passenger cars, and buses. The rule also established a calculation procedure for determining the number of DSPs at a seat location for trucks and multipurpose passenger vehicles with a gross vehicle weight rating less than 4,536 kilograms (10,000 pounds), passenger cars, and buses.

The designation of a seating position has important safety consequences. Under the FMVSSs, motor vehicle manufacturers must meet various performance requirements for each interior location designated as a seating position. For example, FMVSS No. 208, Occupant Crash Protection, requires that each DSP in a light vehicle be provided with the appropriate occupant crash protection system (e.g., air bag, seat belts or both). Clarity in the definition of DSP is important for the purposes of that standard because if a vehicle has fewer DSPs than the number of individuals able to sit in it, one or more of those individuals would not be protected by seat belts and/or other crash protection systems.

In the October 2008 final rule, the agency stated that the revised definition of “designated seating position” added clarity to the existing definition and was not expected to have a

¹ 73 FR 58887 (Oct. 8, 2008) (Docket No. NHTSA-2008-0059).

substantial impact on current vehicle designs. The degree to which seat designs exhibited the characteristics that gave rise to the agency's concerns had significantly lessened in the fleet. Manufacturers had either reduced the width of the seating area to more accurately reflect the intended occupancy or had provided additional DSPs.

The October 2008 final rule noted that the inclusion of auxiliary seats in the definition of "designated seating position" and the newly established procedure for determining the number of DSPs would require minor redesign of a small number of vehicles. To allow manufacturers the opportunity to make such redesigns, the agency provided approximately two years of lead time, such that, on September 1, 2010, all vehicles would need to comply with the new requirements.

II. Petitions for Reconsideration

We received ten petitions for reconsideration of the October 2008 final rule. The petitioners are SAE International (SAE), BMW North America (BMW), the Alliance of Automobile Manufacturers (Alliance), Volkswagen of America (Volkswagen), the Association of International Automobile Manufacturers (now Global Automakers), the American Association for Justice (AAJ), Safety Research and Strategies (SRS), Toyota Motor North America (Toyota), Mitsubishi Motors R&D of America (Mitsubishi), and Public Citizen.² Toyota also expressed its support for the Alliance's petition. The petitions filed by SAE International and Toyota were styled both as requests for interpretation and, alternatively if the agency did not agree with their suggested interpretation, as petitions for reconsideration.

In a December 23, 2009 final rule,³ we provided a partial response to these petitions. In response to petitions by the Alliance, Global Automakers, Mitsubishi, and Volkswagen that

² The AAJ petition was jointly filed by the AAJ, the Association of Trial Lawyers of America – New Jersey, Consumer Attorneys of California, Consumers for Auto Reliability and Safety, the New York State Trial Lawyers Association, the Pennsylvania Association for Justice, and the Washington State Trial Lawyers Association. Public Citizen's petition was filed jointly by Public Citizen and the Consumer Federation of America.

³ 74 FR 68185.

sought additional lead time for implementing the new definition of “designated seating position” via a phase-in, we provided one year additional lead time so that vehicle manufacturers would need to comply with the new rule on September 1, 2011. In response to petitions from the AAJ and Public Citizen, we removed language from the text of the DSP definition stating that any State requirement, including any determination under State tort law, premised on there being more DSPs than the number contemplated in the definition, was preempted. We also addressed a technical error pointed out in petitions from SAE, the Alliance, and Global Automakers by correcting an erroneous cross reference.

III. Analysis of Petitions for Reconsideration

A. Definition of DSP

Prior to September 1, 2011, the basis for determining whether a location was considered a designated seating position was whether it was a plan (i.e., side) view location capable of accommodating a person at least as large as a 5th percentile adult female if the configuration and design of the vehicle were such that it was likely to be used as a seating position while the vehicle is in motion. The October 2008 final rule replaced this definition with one setting forth a more objective manner of determining whether a seating surface is considered a DSP. As defined in the October 2008 final rule, a designated seating position is a seat location with a seating surface width of at least 330 mm.

Global Automakers petitioned the agency to replace the 330 mm seat cushion width specification with the prior language relying on the capability of accommodating a 5th percentile adult female. Global Automakers stated that this prior definition would achieve the agency’s intended goal because the formula for counting DSPs would still be specified in section 571.10.

The agency is denying the petition to amend section 571.3 to revert to the prior definition. We continue to believe that the seating surface width measurement better reflects a location's ability to accommodate an occupant. We also believe that the new definition is more consistent with the seating width-based manner for calculating the number of DSPs in section 571.10.

Global Automakers did not provide a compelling reason to revert to the old definition. Its only assertion is that the DSP definition would explain the agency's concept of a DSP. It is true that the 330 mm specification for a DSP in the new definition was consistent with the hip measurement of a 5th percentile adult female. However, as we stated in the October 2008 final rule, our intent was to provide both a more objective definition of DSP and a more objective method for determining the number of DSPs at a seating location.⁴ The current 330 mm specification better implements the agency's intent. Accordingly, we are denying Global Automakers' request.

B. Analysis of Safety Problem

Two petitioners, Public Citizen and SRS, petitioned the agency to amend the DSP definition, asserting that adequately updated data and sound scientific techniques were not employed in developing the final rule.

Public Citizen expressed its belief that the October 2008 final rule did not close the regulatory gap regarding the provision of enough seat belts for the number of designated seating positions. Public Citizen asserted that the agency has not provided sufficient analysis to support its assertions that the change in average seat width between 2001 and 2006 has reduced the safety problem. Public Citizen also stated that the agency did not consider human factors related to reduced seat belt use rates when a third occupant is seated in a seating area with two DSPs.

⁴ See 73 FR 58888.

Public Citizen claimed that the agency did not investigate whether the options of a void space or impediment would discourage occupants from sitting in a space that is not a DSP, nor did the agency have sufficient data to conclude that the reduction in seating width has solved the problem of too many occupants sitting in a seating area.

SRS also questioned the data that NHTSA used to reach its conclusions. SRS reiterated concerns expressed in its comments on the NPRM that the proposed impediment and void specifications were based on inaccurate data. SRS also questioned the agency's reliance on these measures in the absence of any scientific human factors analysis of the potential effectiveness of designs to keep occupants from occupying a non-DSP.

NHTSA addressed many of these issues in the October 2008 final rule. Public Citizen and SRS did not provide any additional information to the agency nor did they provide any suggested changes to the requirements. In response to SRS's comments regarding the accuracy of the data related to the Acura Integra 2-Door, the agency stated:

Safety Research and Strategies also stated that its analysis of the data indicated that the incident rate of three occupants seated at the 2-DSP rear seat of the Acura Integra 2-Door was twice as high as presented in the PRE. The incident rates of the Acura were relied upon by the agency in developing the impediment countermeasure. However, it is unclear whether Safety Research and Strategies evaluated data from the same period as in the agency's analysis.⁵

Although SRS characterized the agency's response as inadequate, in response to SRS's comment, the agency's technical staff reviewed the data in question for the inaccuracies cited by SRS and concluded that the agency's original analysis was valid. Our position has not changed. We do not believe any type of measure is necessary for all rows with two DSPs. A measure, including an impediment, is only required if a seating surface area is otherwise wide enough to be considered to have three DSPs and the manufacturer does not want to add a third seat belt.

⁵ 73 FR 58889 n.2.

The purpose of the measure is to make clear to the consumer that the seating surface is only intended for two occupants at a time.

We also believe that Public Citizen's and SRS's expectations for the effectiveness of measures are overstated. In our Final Regulatory Evaluation (FRE), we stated that we could not estimate the benefit of the impediment/void option.⁶ However, we do believe that impediments and voids could reduce the risk of crash injuries because passengers would be less likely to occupy unprotected spaces that are either unavailable (because of a void between seating positions) or uncomfortable (because of an impediment).

The agency did not conduct a human factors analysis because we identified a small target population in the FRE. The specifications proposed in the NPRM and adopted in the final rule were largely based upon vehicles that were identified as having low fatality rates and employed an impediment or void in the second row. The agency attributed the lower fatality rate to the impediment installed in the seating surface, which deterred overcapacity and misuse. We continue to believe that a human factors study is not necessary to achieve the aim of the final rule, which is the identification of DSPs and improved enforceability.

Based upon the agency's fleet survey, we did not expect impediments or voids to be used in many vehicles. However, when used, we believed their function was to provide consumers with information regarding the vehicle's seating capacity. It was not the agency's intent for impediments and voids to act as physical barriers or make it impossible for a vehicle to be overloaded or misused. In the unlikely event that an occupant considers sitting on an impediment or void and then cannot locate a seat belt, we believe that it should be reasonably obvious to the occupant that the location is not intended for occupancy while the vehicle is in motion.

⁶ Docket No. NHTSA-2008-0059-0002.

In the FRE, the agency identified a significant decrease in the seat belt usage rate when comparing incidents in which two passengers occupied a two-DSP seating area compared to incidents in which three passengers occupied a two-DSP seating area. We believe this explains a drop in the seat belt usage rate in these cases from 53.25 percent to 27.67 percent. It is reasonable to assume that this drop in usage rate was due to the unavailability of a third seat belt in the row and the possible inability of other passengers to use the seat belts that are provided because of lack of physical space. We do not believe a human factors study is necessary to explain this reduced seat belt use rate.

Public Citizen asserted that second rows of two-door SUVs had two-DSP second rows. However, this is contrary to the agency's findings. Most existing vehicles that did not comply with the new requirements were sport coupes with non-traditional second row bench seats and third-row seats on SUVs that were intended to have two DSPs, but the seating surface width was sufficient to have three DSPs. The agency did not identify any sedans or SUVs with a bench seating surface that had a second row with two DSPs.

It remains the view of the agency that the reduced seat size combined with the presence of only two seat belts will more clearly indicate to occupants the capacity for which crash protection is provided. This will prevent manufacturers from including wide bench seats with only two seat belts unless an impediment or void is used that will interrupt the seating surface. Although we expect the new definition and requirements for seat separation to aid in eliminating uncertainty as to the number of DSPs at a seating location, it is not practical to require designs that would completely prevent consumers from attempting to seat more occupants than a row or seat is designed for.

C. Seating Surface Measuring Procedure

A number of the petitions raised issues related to the seating surface measuring procedure. We have grouped these petitions into seven separate issues, which we address below.

1. Determination of the “Front Leading Surface”

SAE requested clarification on how the agency intends to determine the “front leading surface.” The front leading surface is referenced in determining the boundaries of the area in which the seating surface width is measured. Specifically, section 571.10(c)(1) provides that the “seating surface width” is the maximum width of a seating surface in a zone extending from a transverse vertical plane 150 mm (5.9 inches) behind the front leading surface of a seating surface to a transverse vertical plane 250 mm (9.8 inches) behind that front leading surface, measured horizontally and longitudinally.

SAE stated that it interpreted the “front leading surface” as the frontmost edge of the soft trim of the seat cushion, but would not include the forward edge of unpadded components such as seat shields, seat adjusters, or adjuster covers. SAE asked for confirmation of its interpretation.

We agree with SAE that the “front leading surface” would include soft trim, but would not include the unpadded trim components such as decorative seat shields, seat adjusters, or adjuster covers. To reflect this intent, we are amending the language of section 571.10(c) to make clear that these unpadded trim components would not be considered part of the seating surface for the purpose of determining the “front leading surface.”

Furthermore, SAE requested the agency’s position on how the “front leading surface” would be defined when seats are angled such that the centerline of the seat is not parallel with the centerline of the vehicle. SAE asked the agency for confirmation of its interpretation that an “X”

plane tangent to the frontmost edge of the seat cushion is used to measure the 150 mm and 250 mm distance from the front leading edge.

With respect to angled seats, the agency did not intend the “front leading surface” to be defined in the manner described by SAE. Rather, the agency intended the measurement zone to be determined from the front leading surface of the seat in its “forward” facing direction as defined in S4.3 of FMVSS No. 210, regardless of how the seat may be oriented in the vehicle. That is, “forward” refers to the direction in which the seat faces, rather than the direction the vehicle faces, and the measurement zone would be oriented perpendicular to that direction.

To reflect this interpretation, we are making an amendment to section 571.10(c)(1). We believe the effects from this amendment will be minimal because angled seats are not common.

2. Determination of Seating Surface Width

Global Automakers and Toyota requested that the agency clarify its position on how the seating surface width is measured. Global Automakers raised two specific scenarios. The first scenario involves seat cushions whose outer edge slopes downward. Global Automakers was not certain whether the measurement will be made from the outer edge of the seat cushion (identified in A in Figure 1) or the point where the top surface of the cushion begins sloping downward toward the side of the seat (identified as B in Figure 1). Toyota interprets the language as contemplating the seating surface width measurement to take place between the vertical planes tangent to the outboard edges of the seat, as indicated in Figure 2. Toyota stated that if its interpretation is not correct, it was petitioning the agency to adopt its position.

[PHOTOT GRAPHICS]

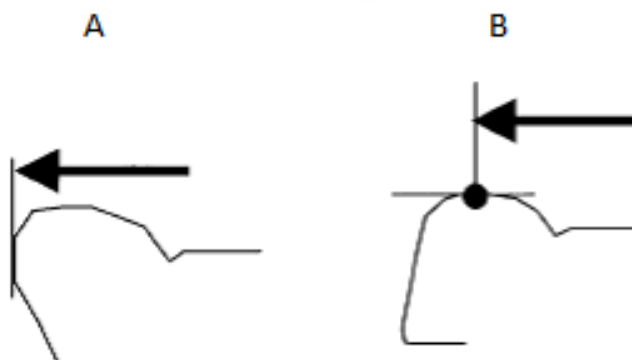


Figure 1: Global Automakers Seat Surface Width Measurement Example

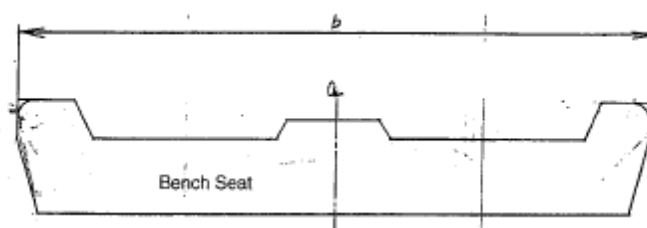


Figure 2: Toyota Seat Surface Width Measurement Example

[END PHOTO]

NHTSA agrees with Toyota's interpretation that the seating surface width will be determined from the maximum width between the vertical planes tangent to the outboard edges of the seat. We note that in the context of seat width measurement, the determination of what is outboard is made with respect to the seat orientation and may not align with what is outboard with respect to the vehicle. This measurement procedure is more objective than the other measurement procedure suggested by Global Automakers. It is not always clear at what point the top surface of the seat cushions begin to slope downward to the side because such surfaces may be rounded or uneven and seat cushions can be pliable.

3. Interior Trim at the Seating Surface Outer Edges

Global Automakers also requested that the agency clarify its interpretation on how the measurement will be taken for seat cushions whose outer edge extends underneath interior trim. Global Automakers noted that, in some cases (one of which is illustrated in Figure 3 below), the interior trim interrupts the “nominal hip room” using the SAE H-point machine and that an occupant could not use the seating surface under the trim.

[PHOTO GRAPHIC]

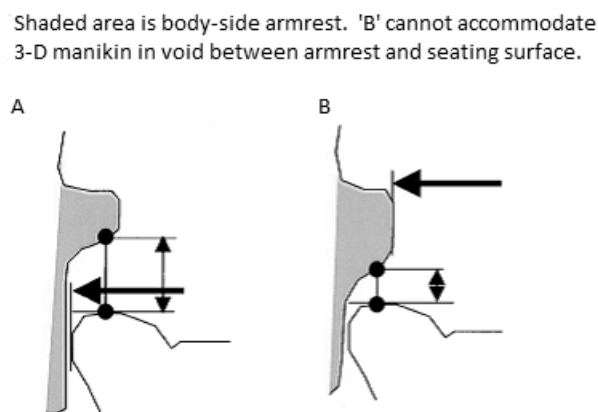


Figure 3: Global Automakers Seat Surface Width Measurement with Armrest

[END PHOTO]

Although the agency agrees that, in Global Automakers’ example, some portion of the “seating surface” may not be a location where an occupant could actually sit, the amendment to the DSP definition was designed to make the definition more objective. The new definition is not based upon non-objective concepts such as the usability of the seating surface by the occupant or “nominal hip room.” Manufacturers will have to consider the usability of the space in designing the vehicle; however, the DSP definition and measuring procedure make no allowance for seating space that is made unusable by the positioning of trim components such as body-side armrests.

NHTSA would measure the seating surface width from the plane indicated in drawing A on Figures 1 and 3 above. NHTSA would only consider a trim component in the determination of the seating surface width if the trim makes contact with the top of the seat within the measurement zone. To make this clearer, we are adding specificity to the determination of the “seating surface width.”

We clarify that the determination of the seating surface width is a comparative measurement of all possible width measurements within the measurement zone, given specific constraints. The seating surface width is the maximum width determined by these comparisons. The constraints on the measurements are that they are made between vertical planes that intersect the outboard seat edges, unless the outboard edge is interrupted by interior trim in contact with the top edge of the seat.

If the seating surface is interrupted by outboard interior trim in contact with the top edge of the seat, the vertical plane used in determining the seating surface width will be the plane that intersects the most inboard point of contact between the interior trim and the point of contact with the top of the seat. We have also added a figure to the regulatory text to illustrate the measurement procedure, including how trim components making contact with the seating surface affect the measurement.

4. Seating Surface Interrupted by Interior Trim

Section 571.10(c)(2)(i)(A) provides an exception to the general rule that adjacent seating surfaces are considered to form a single, continuous seating surface. If adjacent seating surfaces are separated by a fixed trimmed surface that has an unpadded top surface and a width of not less than 140 mm (5.5 inches), those surfaces will not be considered to be continuous.

Public Citizen petitioned the agency to eliminate the option to separate adjacent seating surfaces with unpadded fixed trim. Public Citizen stated its belief that, if a seat contains three 330 mm seating spaces, the manufacturer should be required to have three DSPs with three seat belt assemblies. Otherwise, Public Citizen argued that manufacturers should be required to use voids to interrupt a seating surface.

We are denying Public Citizen's request to remove the option to separate seating surfaces with unpadded fixed trim. It is not practicable in all vehicle types with a bench seat where the seating cushion width would require three DSPs to provide restraints for three DSPs, particularly in the case of rear seats of convertibles and sport coupes. These seats are often close to the vehicle floor, where it would be impractical or impossible to include a void in the seat cushion. We also believe that a child seat positioned in the rear seat, which may extend over the void, could be unstable during use and in a crash. We are also concerned that, if such seats were required to have three DSPs, three occupants would not be able to be seated comfortably, which could reduce seat belt usage at such seating positions. We believe that allowing manufacturers options for interrupting otherwise continuous seating surfaces is the best approach to improving the identification of DSPs by consumers.

SAE requested clarification on how the agency would consider trim when measuring the seating surface. SAE provided two illustrated examples, shown below, and asked for NHTSA's clarification on how "trim" would be defined.

[PHOTO GRAPHIC]

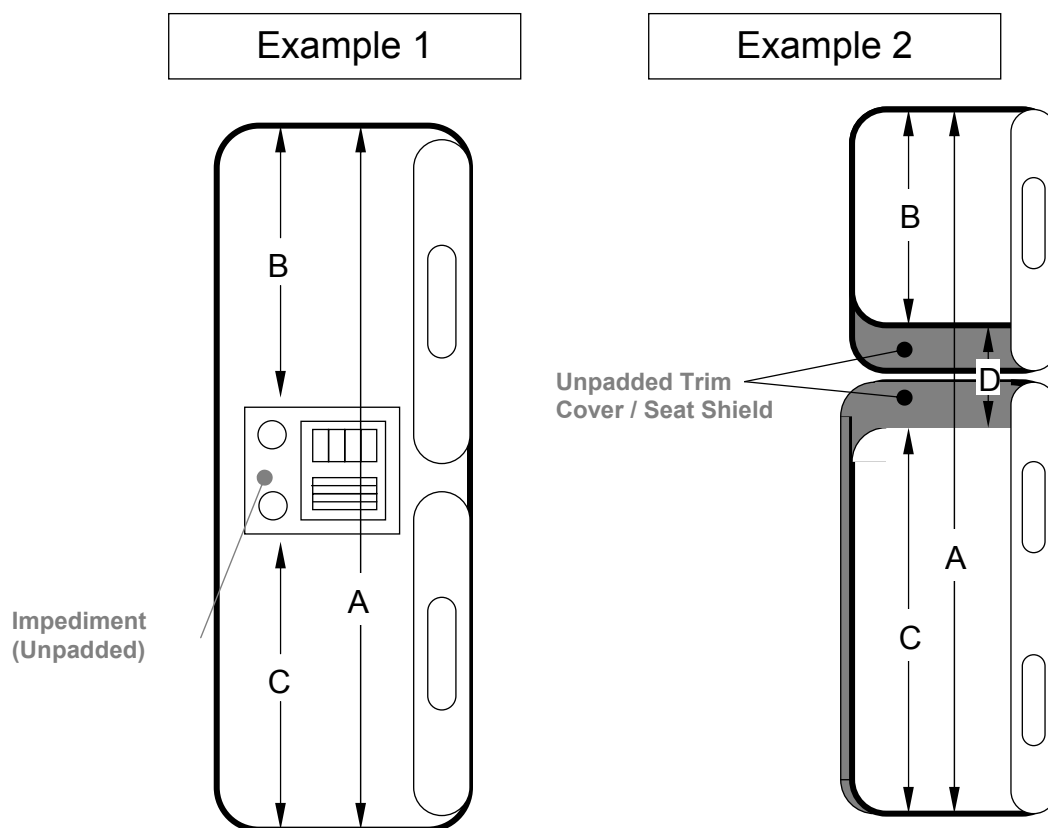


Figure 4: SAE Examples of Seat Measurement with Trim
(Seats in both examples are viewed from above)

[END PHOTO]

In Example 1, SAE described an impediment in the middle of the seat as an “embedded convenience system.” During the seating surface measurement, the agency would first determine if the impediment meets the requirements of sections 571.10(c)(2)(i)(A) or 571.10(c)(2)(ii). SAE stated in its request that it was assumed that the conditions of section 571.10(c)(2)(ii) were not met by the impediment.⁷ Therefore, a determination would need to be made as to whether the impediment was “a fixed trimmed surface whose top surface is unpadded and that has a width not less than 140 mm (5.5 inches), as measured in each transverse vertical plane within that measurement zone.” Such a determination is impossible to make from the schematic provided and may only be possible from a physical examination of the impediment. If the

⁷ We address issues related to section 571.10(c)(2)(ii) in section III.C.5.

impediment satisfied the criteria, the seating width would end at the impediment's edge, as shown by dimension "B" and "C." However, if the impediment did not satisfy the criteria, the agency would define the maximum seating surface width as shown by distance "A" in Example 1. We think this is clear from a reading of section 571.10(c)(2).

SAE asked about the measurement procedure with respect to Example 2. We believe this has been made clear both in the regulation and the agency's test procedure. Assuming the shaded area is fixed, unpadded trim surface, the determination of seat surface width depends on whether the length of "D" is less than 140 mm. If "D" is less than 140 mm, then seating surfaces "B" and "C" form a continuous seating surface and the number of DSPs would be calculated using measurement "A." If "D" is at least 140 mm, seating surfaces "B" and "C" would have sufficient separation such that the number of DSPs for seating surfaces "B" and "C" would be calculated separately based on the length of "B" and "C."

SAE also asked whether the use of the word "unpadded" meant the trim had to be uncovered or whether a fabric with minimal foam backing would be considered unpadded. In the October 2008 final rule, the agency merely defined the footprint that a trim impediment must cover to allow manufacturers a degree of flexibility in assigning this space.⁸ For example, a fixed unpadded trim surface could be used for a convenience function such as a cup holder, tray, or storage and also serve to divide seating surfaces.

The agency did not define the term "unpadded trim" or provide examples in the October 2008 final rule. This was intentional. We did not want to be unnecessarily design restrictive or prevent manufacturers from implementing creative solutions that would appeal to consumers and still provide visual cues regarding the number of DSPs in a given row. To address SAE's question, we do not intend the term "unpadded" to mean that the trim cannot be covered.

⁸ See 73 FR 58891.

Unpadded trim, even if covered with material such as fabric, leather, or vinyl solely for aesthetic purposes, will be significantly harder than the more pliable foam and covering used for the seat cushion and would make sitting on the surface unwelcoming, which would deter its use as a seating surface.

5. Voids and Seat Separation

Toyota requested clarification regarding the width measurement of a void defined in section 571.10(c)(2)(i)(B). That section states that seating surfaces can be separated by

[a] void whose cross section in each transverse vertical plane within that measurement zone is a rectangle that is not less than 140 mm (5.5 inches) wide and not less than 140 mm (5.5 inches) deep. The top edge of the cross section in any such plane is congruent with the transverse horizontal line that intersects the lowest point on the portion of the top profile of the seating surfaces that lie within that plane.

Toyota interpreted this language to mean that the width measurement of the void is taken between planes tangent to the seat edges on either side of the void. This means that, where the seat edges adjacent to a void are sloped downward toward the edge of the seat before turning downward, the measurement between the seat edges would be made from the outer edge of the seat rather than from where the seat surface begins to slope downward.

This issue has been clarified in NHTSA's test procedure with illustrated examples. We believe it is clear that the width of the void area would be measured between the adjacent edges of the two adjacent seating surfaces.

SAE also requested clarification regarding voids. It interpreted section 571.10(c)(2)(i)(B) as applicable to seating rows that have three or more seats. It reasoned that, when two or more seats are at least 140 mm apart, section 571.10(c)(2)(iii) would apply, which relates specifically to the seat cushion separation requirement for outboard seats. SAE asked for clarification on how NHTSA would interpret two adjacent seating surfaces that are not separated by 140 mm.

We do not agree with SAE's interpretation of the applicability of section 571.10(c)(2)(i)(B). The applicability of section 571.10(c)(2)(i)(B) is not limited to rows with certain numbers of DSPs. Rather, we anticipate that seating surfaces with "voids" would generally be used by a manufacturer when otherwise there would be a single seating surface that would require more DSPs than the manufacturer intends. In contrast, the seat cushion separation in section 571.10(c)(2)(iii) only applies to adjacent outboard seating surfaces and does not limit the measurement zone. However, when adjacent seating surfaces are not separated by 140 mm, the agency would consider the seating surface between the two seats to be continuous. We believe this issue has been addressed by specific examples in the agency's test procedure.

6. H-Point Interruptions

SAE and Toyota requested clarification of section 571.10(c)(2)(ii) as it applies to interrupting the H-point between two adjacent DSPs. SAE expressed uncertainty as to whether the agency intended that the interruption be at the location of the H-point or within a larger area such as the 101 mm height or 76 mm fore-aft distance of the hip room zone. We believe the regulatory text is clear that the actual location of the H-point must be interrupted by interior trim. This was further illustrated in the agency's test procedure, which was published after we received SAE's request for clarification.

Toyota interpreted the measurement procedure as using the two outboard seating position H-points to determine the "X" plane location. We agree with Toyota that we would use the outboard DSPs to determine the "X" plane location. However, we would also define the H-point for any adjacent DSPs, even if they are not both outboard. To clarify this, we are amending section 571.10(c)(2)(ii). Furthermore, the H-point for adjacent DSPs may not necessarily fall on

the same plane, or even planes that pass through each other. In such a case, interior trim can interrupt the “X” plane if it interrupts the “X” planes of both adjacent seating positions.

7. Folding, Removable, and Adjustable Seats

SAE requested that the agency clarify the applicability of section 571.10(c)(3), which specifies the manner in which folding, removable, and adjustable seats are considered. This section provides that folding, removable, and adjustable seats are measured in the configuration that results in the single largest maximum seating surface width.

First, SAE questioned what effect folding or removable seats have on the seating surface width. That is, SAE noted that when such seats are folded or removed, manufacturers do not intend for people to sit on the back of the seat or in the area where the seat previously occupied. The agency’s intent, with respect to seats that are designed to fold or be removed from the vehicle, such as seats in the second or third row of minivans or sport utility vehicles, was that the seats be configured such that the maximum possible seating surface width is measured for that row when measuring seating surface width.

Second, SAE noted that seats that adjust backwards and forwards or up and down do not cause the seat cushion itself to become wider. SAE asked what range, including seat rotation, in the case of swiveling seats, to take into account when measuring surface width. We recognize that adjusting split bench seats or seats that can slide, depending on how the seats are positioned, may result in changes to the total seating surface width, and consequently may alter the calculated number of DSPs. When adjusting seat positions that may result in changing the number of DSPs, as with folding seats, we would determine the number of DSPs by adjusting the seats in a manner that produces the maximum number of DSPs. With respect to seats that adjust up and down, we note that the height of the seat is not taken into account.

Third, SAE suggested that, if NHTSA intends to use section 571.10(c)(3) to determine whether a seat is adjacent, the language would be better placed within the list specified under paragraph (c)(2) of that section. We disagree. Paragraph (c)(2) states the general rule that adjacent seating surfaces are considered to be a single, continuous seating surface and then lists three exceptions. The language in paragraph (c)(3) sets forth the configuration of certain types of seats, but does not itself define when a seating surface is (or is not) a continuous seating surface. Thus, we believe it is better to separate the rules for considering folding and adjustable seats from the exceptions stated in paragraph (c)(2).

8. Closely Adjoining Seat Belt Buckles

BMW petitioned the agency to allow two “closely adjoining” seat belt buckles at the center of a seating row with a seating surface width of less than 1,200 mm to be considered a seating surface with two DSPs. Under section 571.10, as currently written, such a seating surface, if at least 1050 mm, would have three DSPs. BMW reasoned that such closely adjoining seat belt buckles, which are raised from the surface of the seat, would serve as a visual cue and an impediment to using the area in between as a seat.

We are denying BMW’s request. Although it is possible that adjoining seat belt buckles may provide a visual cue to some occupants as to what is or is not a DSP, BMW provided no data to establish the validity of this assumption. We are also not convinced that adjacent seat belt buckles will provide an impediment to seating, as suggested by BMW. Therefore, we do not believe that adopting BMW’s suggested language will solve the safety problem that the new DSP definition was intended to resolve. In the October 2008 final rule, we noted that the agency received a complaint regarding the 2-door 2001 Ford Explorer, where consumers had believed the rear seating was sufficient for three people, even though there were only two DSPs and,

consequently, two seat belt buckles.⁹ The seating surface width of the 2001 Ford Explorer is 1,270 mm, which is only 70 mm more than the maximum seating surface width that BMW proposes to allow. It is reasonable to believe that a situation similar to the 2001 Ford Explorer could occur again if NHTSA adopts BMW's suggested regulatory text.

D. Calculating the Number of DSPs

The new procedure for calculating the number of DSPs uses one of two calculations depending on the overall seating surface width. For adjacent seats with a continuous seating surface with a width less than 1,400 mm, the seating surface width is divided by 350 mm and rounded down to the nearest whole number to determine the number of DSPs. For adjacent seats with a continuous seating surface width of 1,400 mm or more, the measured surface is divided by 450 mm and rounded down to the nearest whole number.

Volkswagen questioned the use of the 350 mm divisor because the petitioner stated that the value is inconsistent with the prior DSP definition and manufacturer design parameters. The prior definition of designated seating position stated that seats with more than 127 cm (1,270 mm) of hip room shall not have less than three DSPs. Volkswagen reasoned that, applying this width to the new DSP definition, a divisor of 423 mm (1,270 mm divided by 3) would be appropriate. Volkswagen also stated that the design program used by many manufacturers provides 354 mm as the ergonomic design value for the 5th percentile female seating hip room. Volkswagen believes that a divisor in the range of 360 to 400 mm should be established for seating surface widths less than 1,400 mm.

We are denying Volkswagen's petition to change the divisor for determining the number of DSPs. In the October 2008 final rule, the agency noted that a survey of the model year 2006

⁹ See 73 FR 58889.

fleet supported the use of a 350 mm divisor.¹⁰ The average width of a two-DSP seating surface location in a vehicle dropped from 1,118 mm in model year 2001 sport-utility vehicles to 979 mm in comparable model year 2006 vehicles. We observed that the reduced seat size more clearly indicated to occupants the capacity for which crash protection is provided. Based upon this survey, we continue to believe that a 350 mm divisor is consistent with existing design practice.

Global Automakers petitioned the agency to correct an anomaly in the calculation for the number of DSPs in a seating surface width between 330 and 349 mm. Using the formula for seating surface widths less than 1,400 mm specified in section 571.10(b)(1), the number of DSPs for such a seating surface would be zero (330 mm divided by 350 mm, rounded down to the nearest whole number). Global Automakers believes that the agency intended such seating surfaces to have one DSP.

We agree with Global Automakers and are adopting their suggested regulatory text correction. Although the definition of DSP in section 571.3 states that a DSP is a seating location with a seating surface width at least 330 mm, the formula for calculating the number of DSPs for a seating location with a seating surface width of at least 330 mm, but less than 350 mm, would produce a value of zero. This was not the agency's intended result. To correct this anomaly, we are amending section 571.10(b)(1) to establish a minimum of one DSP.

We are also making a technical correction to the calculation of the number of DSPs for seating locations with a seating surface width of 1,400 mm. This issue arose in interpretation requests received by the agency from Nissan North America, Inc. (Nissan) and Girardin Minibus

¹⁰ See 73 FR 58889.

(Girardin).¹¹ Nissan and Girardin both raised the issue of seating surfaces longer than 1,400 mm (1,700 mm and 1,778 mm, respectively) and asked NHTSA to confirm that such a seating surface could have four DSPs. Using the formula set forth in section 571.10(b)(2), the seating surfaces would have three DSPs.¹²

In response, the agency noted that the definition of “designated seating position” was changed because of a concern that, in certain situations, the number of people occupying a seating surface area exceeded the number of DSPs for that area. Particularly, the agency was concerned with seating surfaces that could accommodate three people, but had only two DSPs. Nissan and Girardin put forward a scenario in the opposite direction, a scenario in which a manufacturer wants to designate more DSPs than the number required by the formula in section 571.10(b) and where the seating area is specifically designed for that greater number of occupants. We stated that it was not our intent to limit manufacturers from designating more DSPs than specified by the formula in section 571.10(b)(2). Moreover, we noted that the data do not demonstrate a problem with four people occupying a seat with three DSPs.¹³ The agency chose the 450 mm divisor for such seats based on the width typically used by seating manufacturers.

In light of the issue raised by Nissan and Girardin, we are clarifying that the calculation procedure in section 571.10(b)(2) for seating surfaces of 1,400 mm or more is intended to be a minimum and manufacturers can provide more DSPs than the number calculated by the formula for these longer seating surfaces.

E. Consumer Information Label

¹¹ NHTSA’s response to these interpretation requests can be found at <http://isearch.nhtsa.gov/files/09-003169%20nissan.draft.dj.aug20.htm> and <http://isearch.nhtsa.gov/files/09-000724%20fortin.draft.dj.aug20.htm>.

¹² A seating surface width of at least 1,800 mm would be required to have four DSPs.

¹³ See 73 FR 58892.

Public Citizen petitioned the agency to require labeling of non-DSP locations, such as voids separating adjacent DSPs, to reflect that the location is not a seat and that sitting in the location while the vehicle is in motion is dangerous. Public Citizen believes that the label would provide a clear and unambiguous indication that such an area is not a seat.

We are denying Public Citizen's request. Although we agree that the labeling of non-DSP locations is consistent with the agency's intent of providing visual cues that a non-DSP location should not be used as a seat, we believe that this suggestion is outside of the scope of this rulemaking procedure. We did not propose labels as a countermeasure in the NPRM and did not seek public comment on the use of labels.

In the October 2008 final rule, we discussed an option in FMVSS No. 207, Seating Systems, that allows manufacturers of motor homes to place a label on a seating location that is not to be used while the vehicle is in motion, instead of identifying the seating location as a DSP and installing a seat belt. The Recreational Vehicle Industry Association had expressed its concern that the agency's NPRM had proposed eliminating this option.

We believe that the labeling of non-DSP locations for passenger vehicles is different because the FMVSS No. 207 option for labeling applies to actual seats and chairs intended to be used as such by occupants, albeit when the vehicle is not in motion. In the case of light vehicles, we believe that the locations in which one of the agency's specified impediment countermeasures is used would be locations that would not comfortably seat an occupant.

F. SAE J1100

SAE stated that it would like to include new definitions and dimensions related to the October 2008 final rule in the newest version of SAE J1100 – Motor Vehicle Dimensions. In addition, SAE stated that it would like SAE J1100 to be consistent with the agency's intentions

regarding the new DSP definition. SAE created draft definitions of “seating surface” and “seating surface width” and requested that the agency express its agreement with these definitions. We believe our response to the specific concerns and questions raised by SAE and other petitioners and information in the agency’s published test procedure offer the guidance SAE seeks on the definitions of “seating surface” and “seating surface width.” In the event that SAE desires NHTSA’s interpretation regarding specific examples, SAE can request the agency’s interpretation.

G. Technical Correction for Side-Facing Seats

The revised DSP definition eliminated the exclusion of auxiliary seat accommodations such as temporary or folding jump seats. In the October 2008 final rule, we amended the test procedure in S5 of FMVSS No. 210, Seat Belt Assembly Anchorages, to specify that, for side-facing seats, the specified force would be applied in the direction that the seat faces in a vertical plane perpendicular to the longitudinal centerline of the vehicle. However, we did not amend the strength requirement itself to remove the exception for side-facing seats. We were clear in both the NPRM and final rule that side-facing seats would need to comply with the seat belt anchorage requirements of FMVSS No. 210.¹⁴ We are including in this response a technical correction to S4.2.1 and S4.2.2 of FMVSS No. 210 to correct this oversight.

IV. Rulemaking Analyses and Notices

A. Executive Order 12866, Executive Order 13563, and DOT Regulatory Policies and Procedures

The agency has considered the impact of this rulemaking action under Executive Orders 12866 and 13563 and the DOT’s regulatory policies and procedures. This action was not reviewed by the Office of Management and Budget under Executive Order 12866. The agency

¹⁴ See 70 FR 36097-98; 73 FR 58892-93.

has considered the impact of this action under the Department of Transportation's regulatory policies and procedures (44 FR 11034; February 26, 1979), and has determined that it is not "significant" under them.

This action completes the agency's response to petitions for reconsideration of the October 2008 final rule amending the definition of "designated seating position." This final rule merely clarifies existing regulatory text to be more clear and consistent with the agency's intention. Today's action will not have any cost impacts for vehicle manufacturers. This action will not have any safety impacts.

B. Privacy Act

Anyone is able to search the electronic form of all documents received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78) or you may visit <http://docketsinfo.dot.gov/>.

C. Other Rulemaking Analyses and Notices

In the October 2008 final rule and in the December 2009 final rule providing a partial response to the petitions for reconsideration, the agency discussed relevant requirements related to the Regulatory Flexibility Act, Executive Order 13132 (Federalism),¹⁵ Civil Justice Reform, the National Environmental Policy Act, the Paperwork Reduction Act, the National Technology Transfer and Advancement Act, and Executive Order 13045 (Protection of Children from Environmental Health and Safety Risks). As today's final rule merely clarifies regulatory text to reflect the agency's intent in the October 2008 final rule, it will not have any effect on the agency's analyses in those areas.

¹⁵ The issue of preemption was addressed in the preamble of the December 2009 final rule. See 74 FR 68187-89.

List of Subjects in 49 CFR Parts 571

Imports, Motor vehicle safety, Reporting and recordkeeping requirements, Tires.

In consideration of the foregoing, NHTSA amends 49 CFR Part 571 as follows:

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

1. The authority citation for part 571 of Title 49 continues to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49 CFR 1.95.

2. In § 571.10, revise paragraphs (b)(1), (b)(2), (c)(1), and (c)(2)(ii) and add paragraphs (c)(1)(i) through (iii) and Figure 1 to read as follows:

§ 571.10 Designation of seating positions.

* * * * *

(b) * * *

(1) For seat locations with a seating surface width, as described in paragraph (c), of less than 1400 mm (55.2 inches): $N = \text{The greater of } 1 \text{ or } [\text{seating surface width (in mm)} / 350]$ rounded down to the nearest whole number;

(2) For seat locations with a seating surface width, as described in paragraph (c), greater than or equal to 1400 mm (55.2 inches): $N = \text{No less than } [\text{seating surface width (in mm)} / 350]$ rounded down to the nearest whole number.

(c) ***

(1) As used in this section, “seating surface” only includes the seat cushion and soft trim and excludes unpadded trim components such as a decorative seat shield, seat adjusters, or

adjuster covers. As used in paragraphs (c)(1)(ii) and (iii) of this section, “outboard” and “inboard” are determined with respect to the measurement zone established in paragraph (c)(1)(i) of this section. As used in this section, “seating surface width” is the maximum horizontal width of a seating surface determined by the following procedure:

(i) Establish a measurement zone bounded by two vertical planes oriented perpendicular to the direction the seat is facing. One is located 150 mm (5.9 inches) behind the front leading surface of the seat and the other is located 250 mm (9.8 inches) behind the front leading surface of the seat. A measurement location within this zone is any vertical plane parallel to the planes establishing the boundary of the zone.

(ii) For each measurement location within the zone, establish vertical reference planes parallel to the direction the seat faces that intersect the most outboard point on each side of the seating surface at that measurement location. If outboard interior trim contacts the top surface of the seat cushion, establish another vertical plane parallel to the direction the seat faces that intersects the most inboard point of contact between outboard interior trim and the top surface of the seat cushion.

(iii) For measurement within the zone, measure horizontally between and perpendicular to the most inboard vertical reference planes established in (ii), as shown in Figure 1 (provided for illustration purposes).

(2) * * *

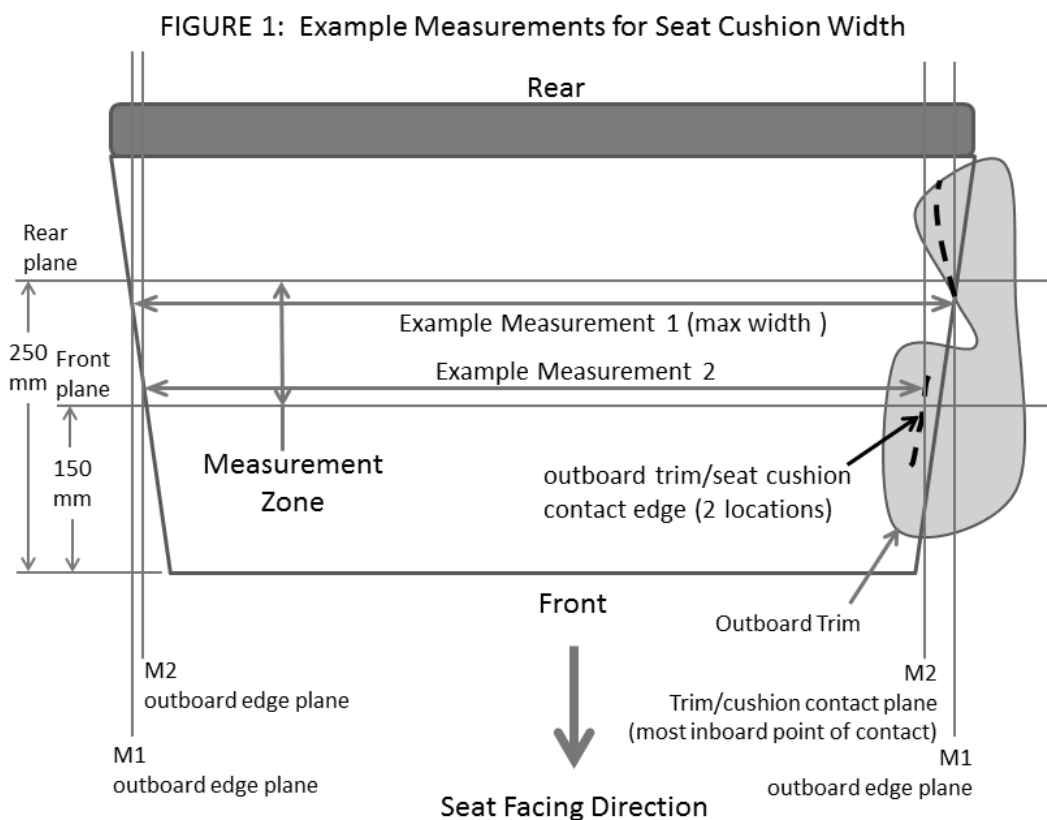
(i) * * *

(ii) Interior trim interrupts the measurement of the nominal hip room between adjacent seating surfaces, measured laterally along the “X” plane through the H-point. For purposes of this paragraph, the H-point is located using the SAE three-dimensional H-point machine per

Society of Automotive Engineers (SAE) Surface Vehicle Standard J826, revised July 1995, “Devices for Use in Defining and Measuring Vehicle Seating Accommodation” (incorporated by reference, see section 571.5) with the legs and leg weights removed, or

* * * * *

[PHOTO GRAPHIC]



Plan view of a seat showing several example measurement locations for the determination of seating surface width. Measurement 1 is the seat surface width for this illustration.

[END PHOTO]

3. Amend § 571.210 by revising the introductory paragraphs to S4.2.1 and S4.2.2 to read as follows:

§ 571.210 Standard No. 210; Seat belt assembly anchorages.

* * * * *

S4.2.1 Except as provided in S4.2.5, the anchorages, attachment hardware, and attachment bolts for any of the following seat belt assemblies shall withstand a 5,000 pound force when tested in accordance with S5.1 of this standard:

S4.2.2 Except as provided in S4.2.5, the anchorages, attachment hardware, and attachment bolts for any of the following seat belt assemblies shall withstand a 3,000 pound force applied to the lap belt portion of the seat belt assembly simultaneously with a 3,000 pound force applied to the shoulder belt portion of the seat belt assembly, when tested in accordance with S5.2 of this standard:

* * * * *

Issued in Washington, DC, on November 5, 2013 under authority delegated in 49 CFR 1.95.

David L. Strickland,
Administrator.

Billing Code: 4910-59-P